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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,402	12/28/2001	Hitoshi Matsumoto	VX012397 PCT	3876
21369 7590 03/11/2008 POSZ LAW GROUP, PLC 12040 SOUTH LAKES DR. SUITE 101 RESTON, VA 20191				
EXAMINER				
JAGOE, DONNA A				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/019,402

Applicant(s)

MATSUMOTO ET AL.

Examiner

Donna Jagoe

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-30, 32-40, 44 and 49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-30, 32-40, 44 and 49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/888)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicants' arguments filed November 5, 2007 have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Claims 27-30, 32-40, 44 and 49 are pending in this application.

Claims 27-30, 32-40, 44 and 49 are rejected under 35 U.S.C. 103(a) as obvious over Nakhmedov et al. (Konservnaya I Ovoshchesushil'naya Promyshlennost) in view of Lawhon et al. U.S. 4,643,902 and Laboratoires Chibret, GB 1,007,751.

Nakhmedov et al. teach, in Table 1, a black currant composition comprising 6256.8 ± 11.5 mg/100g and 6128.9 ± 15.2 mg/100g of anthocyanin¹ (about 6.26% which is encompassed by the claimed about of 5 to 25% of black currant anthocyanin). It meets the claim because there is no monosaccharide contained therein and there is no organic acid mentioned. The claim is drawn to not more than 5% organic acid. This amount encompasses the 0% organic acid of Nakhmedov et al. Regarding claims drawn to delphinidin and delphinidin-3-o-rutinoside, it is known that delphinidin and delphinidin 3-rutinoside is contained in the anthocyanin of black currant fruit as recited by Nakhmedov et al. (see page 7 of the translation). Regarding the range of amounts of

¹ $6.2568 \text{ g/100g} \times 100\% = 6.257\%$

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the components of anthocyanin, these amounts are constant and would be present in black currant anthocyanin. Lawhon et al. teach purifying and concentrating juice such as currant juice through by reverse osmosis and optionally by ion exchange resin. It teaches currants. It would have been obvious to substitute black currant juice instead of currant juice since Lawhon et al. teach the reverse osmosis and ion-exchange to be employed for currant juice. It is prima facie obvious to substitute equivalents motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezei* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532. Since the process is applicable to currants one of ordinary skill in the art would have been motivated to employ the method of extracting the juice from black currants by reverse osmosis and/or ion-exchange resin since Lawhon et al. teach it to be useful to produce juice from currants. Regarding claims 30, 32, 33 and 34, drawn to a product by process, "The patentability of a product does not depend upon its method of production. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, then the claim is unpatentable even though the prior art product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to the applicant to come forward with evidence establishing an unobvious difference between the claimed product and the

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prior art product. In re Marosi, 218 USPQ 289, 292 (Fed. Cir. 1983). Claims 35-36 are drawn to a food composition. There is no general rule as to the weight given a preamble as a positive limitation affecting the patentability of the claimed subject matter. See In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed Cir. 1983), In re Neugebauer et al., (CCPA 1964) 330 F2d 353, 141 USPQ 205, In re Duva, (CCPA 1967) 387 F2d 402, 156 USPQ 90, and especially Integra LifeSciences I Ltd. V. Merck KgaA, (DC Scalif) 50 USPQ2d 1846. The "food or drink" of the claims is interpreted as intended use. The intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Since the marcs of the Nakhmedov et al and the fruit juice of Lawhon et al. are capable of performing the intended use of being consumed, then it meets the claim. Regarding claims 37-40 drawn to improvements in blood fluidity, blood pressure and various visual functions, the intended use of the claimed composition does not patentably distinguish the composition, per se, since such undisclosed use is inherent in the reference composition. In order to be limiting, the intended use must create a structural difference between the claimed composition and the prior art composition. In the instant case, the intended use does not create a structural difference, thus the intended use is not limiting. However, Laboratoires Chibret teach that anthocyanin glucosides such as those obtained from bilberries are useful for visual acuity enhancing night vision (column 1, lines 20-25). It would have been obvious to employ black currant anthocyanin for vision problems such as visual acuity and night vision. Motivation to employ black currants would come from the knowledge that

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Laboratoires Chibret teach anthocyanins such as those obtained from bilberries to be useful for such a purpose. It is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532. Since both bilberries and black currants contain anthocyanin, it would have been obvious to employ black currants to improve vision since Laboratoires Chibret teach anthocyanin containing vegetable extracts of fruit juices to be useful for such a purpose. Nakhmedov et al. teach, in Table 1, a black currant composition comprising 6256.8 ± 11.5 mg/100g and 6128.9 ± 15.2 mg/100g of anthocyanin (about 6.26% which is encompassed by the claimed about of 5 to 25% of black currant anthocyanin). It meets the claim because there is no organic acid mentioned. The claim is drawn to not more than 5% organic acid. This amount encompasses the 0% organic acid of Nakhmedov et al. Claim 44, drawn to a black currant anthocyanin containing food composition prepared by purifying, separating and concentrating the black currant anthocyanin in a retentate with a negatively charged reverse osmosis membrane from raw material. Lawhon et al. teach purifying and concentrating juice such as currant juice through by reverse osmosis and optionally by ion exchange resin. It teaches currants. It would have been obvious to substitute black currant juice instead of currant juice since Lawhon et al. teach the reverse osmosis and ion-exchange to be employed for currant juice. It is prima facie obvious to substitute equivalents motivated by the reasonable

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expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532. Since the process is applicable to currants one of ordinary skill in the art would have been motivated to employ the method of extracting the juice from black currants by reverse osmosis and/or ion-exchange resin since Lawhon et al. teach it to be useful to produce juice from currants. Claim 49 is drawn to a black currant anthocyanin containing monosaccharide free concentrated solution processed into a paste, gel or powder. The composition of Nakhmedov et al. remaining after pressing the marcs in table 1 appears to be a paste.

Thus the claims fail to patentably distinguish over the state of the art as represented by the cited references.

Accordingly, for the above reasons, the claims are deemed properly rejected and none are allowed.

Response to Arguments

Applicant incorrectly indicates that the amendments to the pending claims render instant claim 30 in independent form. The current amendment renders instant claim 29 as independent.

Applicant asserts that the Examiner's position is incorrect because instant claim is drawn to a black currant anthocyanin containing food composition suitable for human consumption "wherein monosaccharide is not found". While applicant claims that the

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monosaccharide is not found, it is left to surmise and conjecture the manner in which one searched for the monosaccharide. Is the monosaccharide present but "not found"? Interestingly, Applicant states on page 11 of the response dated November 5, 2008 that the food composition contains "low amounts of monosaccharides and organic acids".

Further it would have been obvious to produce a black currant anthocyanin composition in which monosaccharide "is not found". Such a modification would have been motivated by the reasoned expectation of producing a black currant anthocyanin composition which is effective in comprehensively treating persons suffering from dental caries, diabetes or obesity where the presence of a saccharide is detrimental. Applicant asserts that table 3 shows an acidity of 9.85 and sugar content of 16.1%. The rejection is based on the composition of table 1. However, regarding the assertion of the sugar content, the instant claims are drawn to a "monosaccharide free composition. Sugars can be monosaccharides, disaccharides and complex carbohydrates. Absent evidence to the contrary, Nakhmedov et al. teach a sugar, not a monosaccharide.

Applicants' reliance on the post filing date reference "Sanna Viljakainen" to allegedly provide evidence of surprising results is not persuasive. The determination of obviousness or nonobviousness must be based upon what was known in the art at the time the invention was made.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

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USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant asserts that Nakhmedov is concerned with obtaining a dye and the presently claimed invention is directed to obtaining a food composition "substantially free of monosaccharide and having a low content of organic acid". In response to applicant's argument, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The prior art "dye" is capable of being consumed, so it meets the claim.

Applicant asserts that the process claims were not properly rejected. Applicant is directed to the Lawhon et al. rejection above wherein Lawhon et al. teach purifying and concentrating juice such as currant juice through by reverse osmosis and optionally by ion exchange resin. It teaches currants. It would have been obvious to substitute black currant juice instead of currant juice since Lawhon et al. teach the reverse osmosis and ion-exchange to be employed for currant juice. It is prima facie obvious to substitute equivalents motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532. Since the process is applicable to currants one of ordinary skill in the art would have been motivated to employ the

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method of extracting the juice from black currants by reverse osmosis and/or ion-exchange resin since Lawhon et al. teach it to be useful to produce juice from currants.

Although Lawhon does not specifically recite a "charged" reverse osmosis (RO) membrane, example 4 in column 10 recites that the RO membrane system is stated to have a 99% rejection for NaCl. It is well known in the art that reverse osmosis is capable of rejecting bacteria, salts, sugars, proteins, particles, dyes and other constituents that have a molecular weight of greater than 150 to 250 Daltons. the separation of ions with reverse osmosis is aided by charged particles. This means that dissolved ions that carry a charge, such as salts, are more likely to be rejected by the membrane than those that are not charged, such as organics. The larger the charge and the larger the particle, the more likely it will be rejected. Since the invention of Lawhon et al. rejects 99% NaCl, the RO membrane is aided by charged particles.

Applicant asserts that the claim language "food composition" distinguishes over the prior art. In response, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The structural differences alleged by the Applicant are not readily apparent to the Examiner.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "concentrating fruit juice") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are

not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna Jagoe whose telephone number is (571) 272-0576. The examiner can normally be reached on Monday through Friday from 8:00 A.M. - 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Donna Jagoe /D. J./
Examiner
Art Unit 1614

February 27, 2008

/Ardin Marschel/
Supervisory Patent Examiner, Art Unit 1614

